

# Clouds 2

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## I. Purpose of Image

The purpose of this project was to photograph clouds for the past month then find the SKEW-T chart for the day of the chosen cloud photo and determine what types of clouds were photographed. By looking at the areas on the chart where the dew point line and temperature line are the closest, we are able to get a hint at what elevation our clouds are at and what type of clouds they might be.

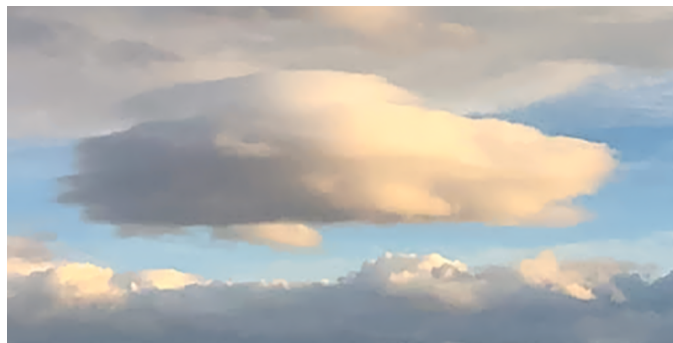
My inspiration for this image was all the different textures in the clouds. There are lumpy clouds, layered clouds, clouds that look like brush strokes, and choppy clouds high in the sky. I really liked the variety and wanted to investigate all the different types.

## II. Circumstances of Image

This photo was taken in the evening on October 25th, 2022 at about 6pm. It was taken in Boulder, Colorado which has an elevation of 5,318 feet. The camera was pointing north west and at about  $10^\circ$  above horizontal. The weather was a little colder with a high of only  $59^\circ\text{F}$ . There were winds of about 20-30mph in the middle of the day but calmed down later in the evening<sup>1</sup>.

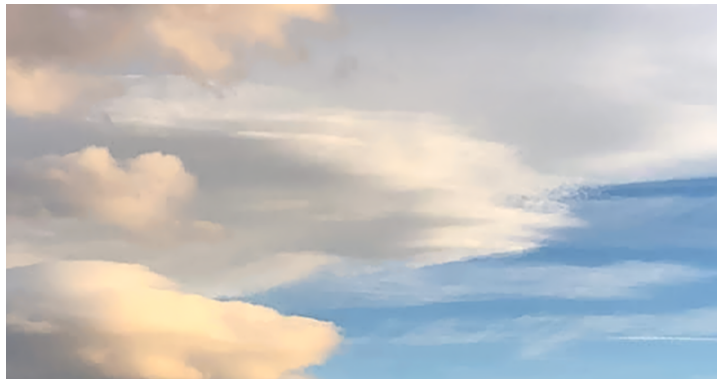
## III. Cloud Diagnostic

Based on the SKEW-T chart and the shape of the clouds, I think that there are cumulus, altostratus, and cirrocumulus clouds in this photo. In the foreground, there are cumulus clouds. They have the classic lumpy shape and are low enough in elevation as shown by the SKEW-T chart and the fact that you can tell that there are clouds above it.



*Cumulus clouds in the foreground, identified by low altitude and lumpy shape*

Behind the cumulus clouds, there is a large uniform altostratus cloud that spans a lot of the sky. I think this is an altostratus cloud because of the smooth and long shape and the fact that you can tell it's higher in elevation than the cumulus clouds. One of the altostratus clouds also happens to be a lenticular cloud because of the layers that can be seen.



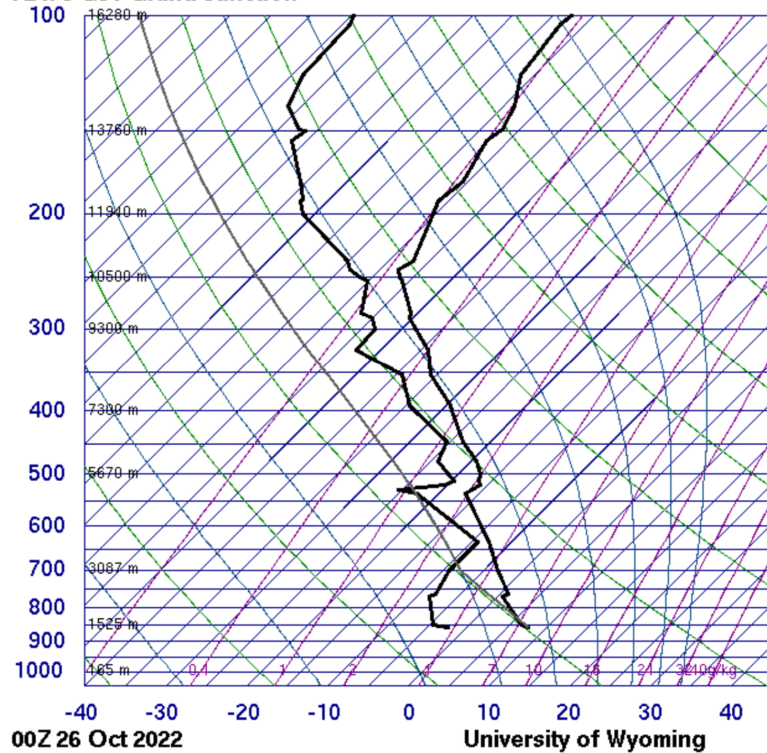
*Altostratus lenticularis cloud, identified by the layers that can be seen*

In the background of this image and surrounding the other foreground clouds are cirrocumulus clouds. These can be identified by the granular and patchy pattern and the fact that they are higher in elevation than the altostratus clouds.



*Cirrocumulus clouds in background, identified by patchy pattern*

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SLAT	39.11
SLON	-108.53
SELV	1475.
SHOW	9.69
LIFT	9.59
LFTV	9.68
SWET	42.00
KINX	13.50
CTOT	12.90
VTOT	23.90
TOTL	36.80
CAPE	0.00
CAPV	0.00
CINS	0.00
CINV	0.00
EQLV	-9999
EQTV	-9999
LFCT	-9999
LFCV	-9999
BRCH	0.00
BRCV	0.00
LCLT	265.7
LCLP	705.5
LCLE	303.0
MLTH	293.5
MLMR	3.13
THCK	5505.
PWAT	10.43

*SKEW-T Chart from October 25th, 2022 (6pm)<sup>2</sup>*

#### IV. Photographic and Visualization Techniques

This photo was taken on an iPhone 11. The settings of the camera were; F-Stop:f/1.8 and Focal Length:35mm. When editing this photo I mainly adjusted the shadows, highlights, and contrast to try to bring more light to darker areas like leaves and mountains on the right. The photo size is 1600x900 pixels.



*Original Photo*



*Edited photo*

## **V. Image Remarks**

My favorite thing about this photo is all the different cloud types in it. The different cloud types and elevations are all very clear, which makes the clouds easier to identify. I also like how the image is framed by the ground and the tree, I think it really balances the photo.

## **References**

- [1] “Time and Date: September 2022 Weather in Boulder.” Accessed December 4, 2022.  
<https://www.timeanddate.com/weather/usa/boulder/historic?month=10&year=2022>
- [2] “University of Wyoming: Upper Air Sounding.” Accessed November 30, 2022.  
<https://weather.uwyo.edu/upperair/sounding.html>